All three agree in postulating a material basis for memory in some enduring change of molecular structure within cells of the brain-cortex.[1] This hypothetical material trace, which they agree to call' an engram ', they liken to a * gene ' or particle of a chromosome of highly specific chemical constitution. No one of them succeeds in making plausible his speculative account of the genesis and deposition of an engram, or in pointing to any valid physical or physico-chemical analogues of the engrams they postulate.

Deserving of serious consideration is one other attempt to suggest the nature of a postulated material basis for the memory, namely, that of Professor Kurt Koffka in his recent volume, *Principles of Gestalt Psychology.* Koffka's attempt is an ingenious and sustained effort; but, in my opinion, the value of the attempt lies in this that it brings out, more clearly than ever before has been done, the difficulty of this task.

Here, in respect of the memory functions, as at so many other crucial points of the argument, those who repudiate the mechanical biology have to find the chief justification of their position in the allegation that explanation in materialist and mechanist terms is impossible. The argument, therefore, fails to be conclusive or compulsive : for the extreme complexity of conditions of all vital phenomena makes it always possible and often plausible for the mechanist to retort that we do not yet know how wonderful matter is, how many of its properties remain unknown or but very slightly revealed to us. And at the

[1] In doing this they implicitly deny the popular assumption of the identity of true memory with motor habit, in this agreeing with Bergson. For there can be little question that motor habit may properly be regarded as largely a matter of well-worn connexions between neurones and systems of neurones.